

## BN34HS SPECIFICATIONS - Continuous Stall Torque 48 - 99 oz-in (0.3390 - 0.6991 Nm) Peak Torque 177 - 363 oz-in (1.2499 - 2.5633 Nm)

Part Number*		BN34HS-25AF- <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			BN34HS-35AF- <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
Winding Code**		01	02	03	01	02	03
L = Length	inches	2.50			3.50		
	millimeters	63.5			88.9		
Terminal Voltage	volts DC	24.0	50.0	100.0	24.0	50.0	100.0
Peak Torque	oz-in	177.0	177.0	177.0	363.0	363.0	363.0
	N m	1.2499	1.2499	1.2499	2.5633	2.5633	2.5633
Continuous Stall Torque	oz-in	48.0	49.0	48.0	91.0	98.0	99.0
	N m	0.3390	0.3460	0.3390	0.6426	0.6920	0.6991
Rated Speed	RPM	14011.0	13900.0	14640.0	7100.0	9340.0	9400.0
	rad/sec	1467	1456	1533	744	978	984
Rated Torque	oz-in	34.0	34.0	34.0	78.0	78.0	78.0
	N m	0.2401	0.2401	0.2401	0.5508	0.5508	0.5508
Rated Current	Amps	18.60	8.60	4.50	22.40	13.00	6.50
Rated Power	watts	396.0	381.0	397.0	478.0	591.0	591.0
Torque Sensitivity	oz-in/amp	1.94	4.20	8.08	3.59	6.21	12.42
	Nm/amp	0.0137	0.0297	0.0571	0.0254	0.0439	0.0877
Back EMF	volts/KRPM	1.43	3.10	5.97	2.66	4.59	9.18
	volts/rad/sec	0.0137	0.0297	0.0571	0.0254	0.0439	0.0877
Terminal Resistance	ohms	0.054	0.242	0.920	0.063	0.163	0.638
Terminal Inductance	m H	0.18	0.85	3.14	0.33	0.99	3.95
Motor Constant	oz-in/sq.rt.watts	8.35	8.54	8.42	14.30	15.38	15.55
	Nm/sq.rt.watts	0.05895	0.06029	0.05949	0.10100	0.10862	0.10980
Rotor Inertia	oz-in-sec <sup>2</sup> x10 <sup>-3</sup>	7.30	7.30	7.30	14.00	14.00	14.00
	g-cm <sup>2</sup>	515.2	515.2	515.2	988.0	988.0	988.0
Weight	oz	38.0	38.0	38.0	65.0	66.0	66.0
	g	1079.2	1079.2	1079.2	1846.0	1874.4	1874.4
# of Poles		4.0	4.0	4.0	4.0	4.0	4.0
Timing		120°	120°	120°	120°	120°	120°
Mech. Time Constant	ms	14.8	14.2	14.6	9.7	8.4	8.2
Electrical Time Constant	ms	3.33	3.51	3.41	5.24	6.07	6.19
Thermal Resistivity	deg. C/watt	1.1	1.3	1.3	0.8	0.9	1.0
Speed/Torque Gradient	rpm/oz-in	58.5	55.8	57.3	19.8	17.1	16.8

**Notes:**

1. Motor mounted to a 4" x 4" x 1/4" aluminum plate, still air.
2. Maximum winding temperature of 155°C.
3. Typical electrical specifications at 25°C.
4. Motor Terminal Voltages are representative only; motors may be operated at voltages other than those listed in the table. For assistance please contact an applications engineer.

\*Many other custom mechanical options are available – consult factory.

\*\*Many other winding options are available – consult factory.

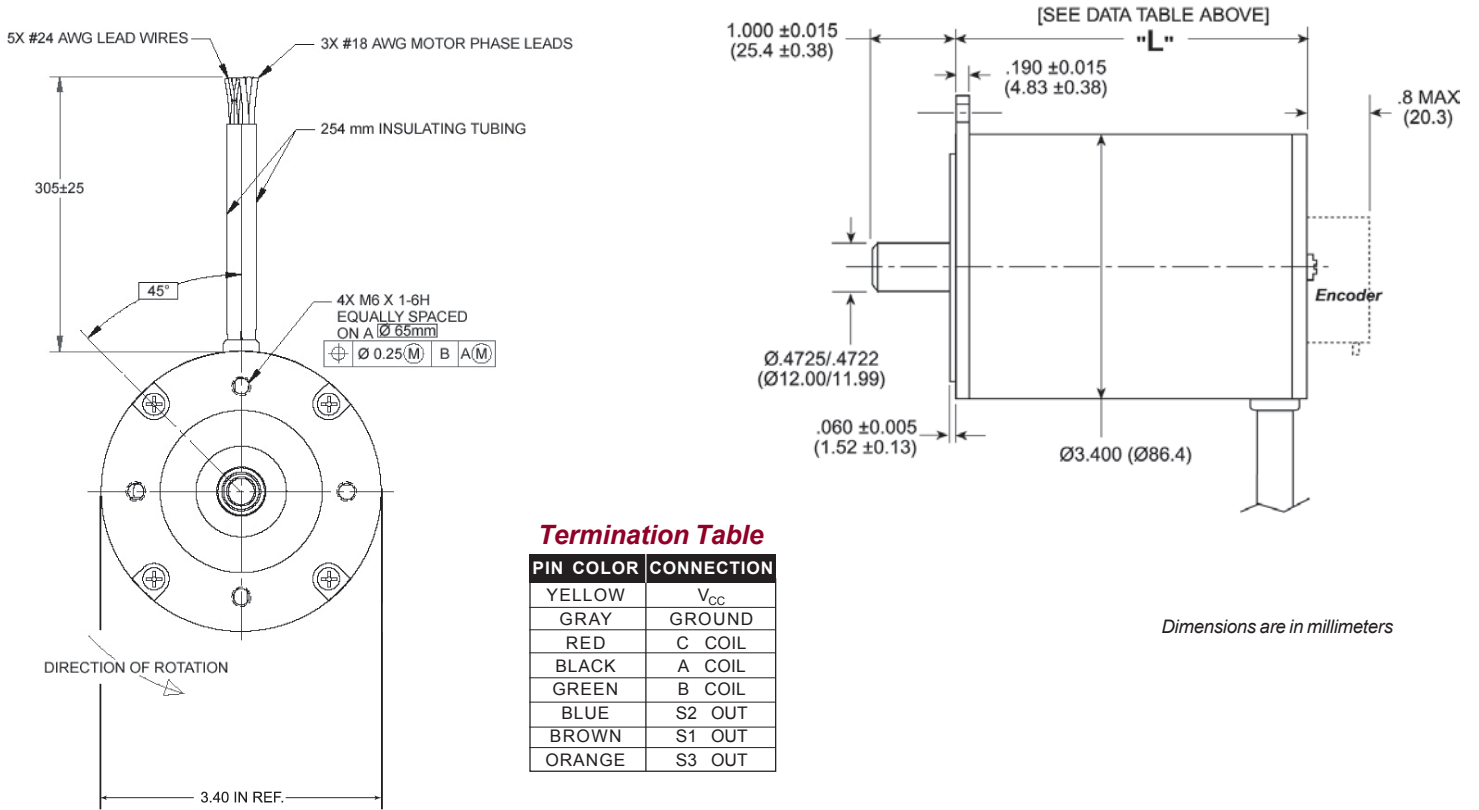
Select your options below and place their code in its corresponding block as shown on page 32.

- |                                                        |                                                             |                                                          |
|--------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------|
| <input checked="" type="checkbox"/> <b>TERMINATION</b> | <input checked="" type="checkbox"/> <b>FEEDBACK OPTIONS</b> | <input checked="" type="checkbox"/> <b>OTHER OPTIONS</b> |
| L – Leads (std)                                        | H – Hall Effect (std)                                       | D – Drive                                                |
| C – Connector                                          | R – Resolver                                                | E – Encoder                                              |
| M – MS Connector                                       | S – Sensorless                                              | G – Gearhead                                             |

# Brushless Motors

## Typical Outline Drawing - BN34

Figure 1



**Note:** Square or Round Cap Available: AF (standard version) comes standard with square cap, see drawing on page 21. For round cap version, see figure 1 above.

### Kontakt: Schweiz und Fürstentum Liechtenstein

#### Peromatic GmbH

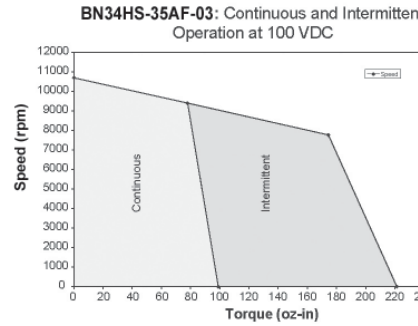
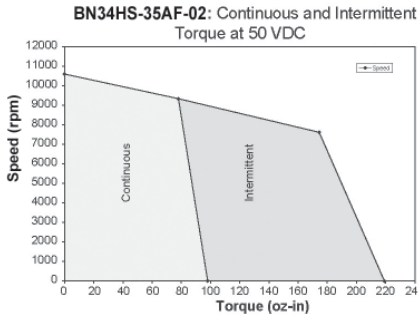
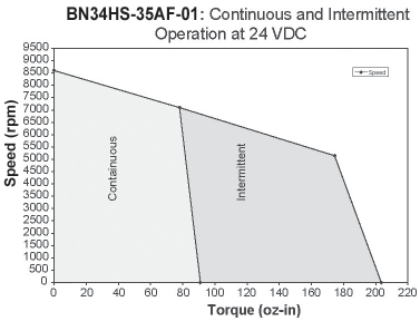
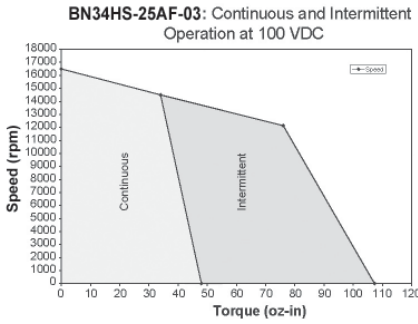
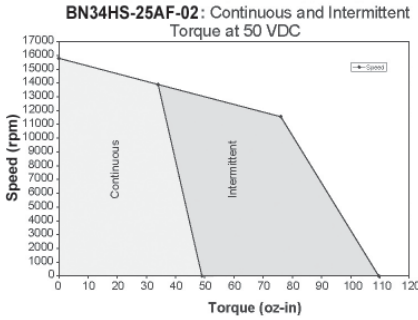
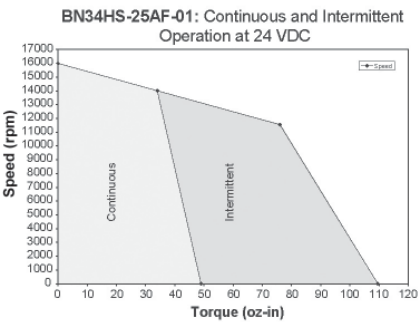
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## BN34 Performance Curves



**Note:** Intermittent region based upon 20% duty cycle - 1 minute on, 4 minutes off.